

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/922,297
Filing Date: August 3, 2001
Applicant: Jane I. Potter
Group Art Unit: 3627
Examiner: Vanel Frenel
Title: Method Of Administering A Health Plan
Attorney Docket: 4371-000002

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**SUPPLEMENTAL APPEAL BRIEF
UNDER 37 C.F.R. § 41.37**

Sir:

In response to the Examiner's reopening of prosecution in the new Office Action mailed July 16, 2007, the Appellant hereby requests reinstatement of the Appeal. This Supplemental Appeal Brief is being submitted in accordance with the above request for reinstatement. The Appellant submits that the Appeal Brief Fee was previously paid on March 6, 2007, but hereby authorizes the Commissioner to charge, if necessary, any fees required under 37 C.F.R. §1.17(f) to Deposit Account 08-0750.

APPELLANT'S BRIEF ON APPEAL

Pursuant to 37 C.F.R. §41.37, this Brief on Appeal is submitted as follows:

REAL PARTY IN INTEREST – UNDER 37 C.F.R. § 41.37(c)(1)(i)

The real parties in interest in this appeal is Right Choice Managed Care, Inc., a corporation of the state of Delaware, having its principle place of business at 1831 Chestnut Street, St. Louis, Missouri, 63103, by virtue of the recorded assignment at Reel No. 012063, Frame No. 0372.

RELATED APPEALS & INTERFERENCES - UNDER 37 C.F.R. § 41.37(c)(1)(ii)

To the best of Appellants' knowledge, no other appeals or interferences are pending which will directly affect, be directly affected by or have a bearing on the Board's decision in the present pending appeal.

STATUS OF THE CLAIMS – UNDER 37 C.F.R. § 41.37(c)(1)(iii)

On February 23, 2007, the Final Rejection of Claims 1 -46 was Appealed.

- A copy of the claims presently being appealed (i.e., Claims 1-46) is provided in the attached Claims Appendix.
- A copy of the most recent Office Action mailed July 16, 2007 placing the presently pending claims 1 - 46 of the present application under rejection is provided in the attached Evidence appendix.

STATUS OF AMENDMENTS – UNDER 37 C.F.R. § 41.37(c)(1)(iv)

A Final Office Action was mailed November 15, 2006, after which an Amendment was mailed January 10, 2007. An Advisory Action was mailed February 9, 2007 maintaining the final rejection. A subsequent Office Action was mailed July 16, 2007 that rejected claims 1-46 currently under appealed.

SUMMARY OF THE CLAIMED SUBJECT MATTER – UNDER 37 C.F.R. § 41.37(c)(1)(v)

Independent Claim 1 recites a method of compensating a health service provider providing health services in service episodes to health plan members. The method comprises:

sharing a portion of the cost savings resulting from the provider's reduction of actual average cost per service episode compared to a predetermined budgeted average cost per service episode, the portion depending in part upon the provider's average cost per service episode compared to an average cost per service episode of providers to the members, and in part upon the provider's performance on at least one of a quality measure and a member satisfaction measure, wherein information on the average cost per service episode is periodically distributed to the health service provider, for motivating the health service provider to more efficiently manage service episodes to keep their cost per service episode below the predetermined budgeted average.

With regard to claim 1, paragraph [0064] of the present application states that if there is a net cost savings the group will be entitled to share in the savings. Paragraph [0064] also states "If the actual performance of a group is below its budget, after that budget is adjusted ... the group is entitled to share in the cost saving, if any".

With regard to the distribution of average cost to a service provider, paragraph [0052] states that once the group's budget is determined, the physicians in the group perform health services during the year, and that

statistics regarding the group, and of other groups in the network are collected and distributed. These reports provide valuable utilization and measure performance information and may enable the physicians in the groups to better manage their patient's health needs.

Independent Claim 10 recites a method of compensating a group of physicians providing health services in service episodes to health plan members. The method comprises:

sharing a portion of the cost savings resulting from the reduction of the group's actual average cost per service episode compared to a predetermined budgeted average cost per service episode, the portion depending in part upon the group's average cost per service episode compared to an average cost per service episode of groups providing service to the members, and in part upon the group's performance on at least one of a quality measure and a member satisfaction measure.

With regard to claim 10, paragraph [0064] of the present application states that if there is a net cost savings the group will be entitled to share in the savings. Paragraph [0064] also states "If the actual performance of a group is below its budget, after that budget is adjusted ... the group is entitled to share in the cost saving, if any".

Independent Claim 18 recites a method of compensating physicians for managing the cost and quality of health care services provided to members of a health plan served by a plurality of physician groups. The method comprises:

developing a budgeted cost per episode of patient for a program period for at least one physician group based at least in part on the historic actual performance of the group; compiling data on actual cost per episode of patient care during the program period; comparing the group's actual cost per episode of patient care during the program period with the group's budgeted cost per episode of patient care for the program period, adjusted for changes in the severity of illness of the patients treated; sharing a portion of the savings resulting from a reduction in actual cost per episode of patient care with the group, the portion depending upon the group's performance on a quality and/or patient satisfaction indicator.

With regard to claim 18, paragraph [0064] of the present application states that if there is a net cost savings the group will be entitled to share in the savings provided that the group also met at a minimum Level I quality standards. Paragraph [0064] also states "If the actual performance of a group is below its budget, after that budget is adjusted for changes in case severity and inflation, and the group achieves at least the Level I quality goal, then the group is entitled to share in the cost saving, if any".

Independent Claim 34 recites a method for managing the cost of health services provided to members of a health plan served by a plurality of physician groups, by compensating physician groups for managing the cost and quality of health care services. The method comprises:

sharing with a group a portion of the cost savings resulting from that group's reduction in the cost episode of patient care during a period from a predetermined budgeted cost per episode of patient care for that period, the portion being determined at least in part by the group's performance on a quality and/or patient satisfaction indicator.

With regard to claim 34, paragraph [0064] of the present application states that if there is a net cost savings the group will be entitled to share in the savings provided that the group also met at a minimum Level I quality standards. Paragraph [0064] also states "If the actual performance of a group is below its budget, after that budget is adjusted for changes in case severity and inflation, and the group achieves at least the Level I quality goal, then the group is entitled to share in the cost saving, if any".

GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL – UNDER 37 C.F.R. § 41.37(c)(1)(vi)

Appellants present the following issues for review:

1. Is the invention set forth in Claims 1-46 non-obvious over Torma (U.S. Pat. No. 5,365,425) in view of Lockwood (U.S. Pat. No. 5,845,254), and in further view of (The Status Of TQM In Health Care, Health Marketing Quarterly; New York; 1998 by Yasin, Mahmoud M.)?

ARGUMENT – UNDER 37 C.F.R. § 41.37(c)(1)(vii)

1. 1st GROUND OF REJECTION ON APPEAL

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), the following provides the contentions of appellants with respect to the 1st ground of rejection above presented for review in accordance with 37 C.F.R. § 41.37(c)(1)(vi).

Independent Claims 1, 10, 18 and 34

Appellants respectfully contend that the Examiner has failed to establish a prima facie case obviousness. The MPEP plainly states:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. (MPEP § 2143).

Appellant respectfully submits that the references do not teach all the claimed limitations, and that there is no suggestion within the references to modify the teachings to arrive at the claimed invention.

I. There is no Suggestion or Teaching Of A Method That Would Make It "Obvious To Try" Modifying or Combining the References In A Manner That Would Result In the Fashion Claimed By The Appellant.

Appellant notes that the Supreme Court has stated that to support an "obvious to try" reasoning, there must be an apparent reason to combine the known elements in the references in a manner that would result in the fashion claimed by the patent application at issue. *KSR International Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 14 (U.S. Apr. 30, 2007).

In rejecting claim 1, the July 16, 2007 Office Action states on page 3 that Torma discloses a method for sharing a portion of the cost savings resulting from the provider's reduction of actual average cost per service episode compared to a predetermined budgeted average cost per service episode, and refers to Torma, col. 9, lines 6-48. However, this section in Torma teaches comparison of costs for military care facilities versus civilian care facilities, and states:

"costs for direct care (care given in military facilities by military physicians) are computed as well as the costs of indirect care (through CHAMPUS) by civilian physicians... Although accounting practices in the military differ widely from those used in the civilian sector, it is possible to compare military-medical costs on a per patient basis with similar costs in civilian hospitals." (Torma, col. 9, lines 8-41).

Torma further teaches that:

"These facilities can now be examined to determine appropriate staffing levels, practices and procedures, and other aspects that set these facilities apart from the others. Likewise, the other SAC hospitals that did not meet the established standards can be examined to determine where improvements are necessary... "by pinpointing those hospitals and physicians that provide the highest quality of care at reduced cost, the factors that make this care possible can be determined and exported to other treatment facilities." (Torma, col. 11, lines 26-47, and col. 12, lines 47-57).

Thus, Torma merely teaches the comparison of respective care facility costs and determination of factors that make quality care at a reduced cost possible. Torma does not disclose anything that would suggest or make it "obvious to try" a method of providing an incentive that would result in the fashion claimed by the Appellant in claims 1, 10, 18 and 34.

The Appellant notes that Lockwood also does not disclose anything that would suggest or make it "obvious to try" combining teachings in a manner that would result in the fashion claimed by the Appellant in claims 1, 10, 18 and 34.. Rather, Lockwood only teaches the communication of quality performance percentages to an administrator for the purpose of improving the quality performance percentage.

With regard to Yasin, this reference also does not disclose or suggest anything that a person of ordinary skill in the art would have found "obvious to try" in creating a cost saving incentive that would result in the fashion claimed by

the Appellant. Yasin's teachings of encouraging doctors to "practice better and use less invasive, less expensive medical procedures" or "rewarding those who did with a cash bonus" does not suggest the claimed limitations, since doctors are rewarded with "a cash bonus" if they "practice better" or use "less expensive medical procedures". (Yasin, p.8, ¶ 2). This suggests that doctors may receive a bonus merely for practicing better, by providing better quality, for example. The suggestion that doctors use "less expensive medical procedures" and receive a cash bonus does not suggest the claimed feature of sharing a portion of cost savings with the doctor or provider, since there is no guarantee that doctors who perform some less expensive procedures will achieve an actual cost savings in their overall average cost per service episode relative to a predetermined budgeted average cost per service episode. Yasin only suggests rewarding those doctors who practice better (without any indication of whether overall cost savings are achieved) with a cash bonus.

Yasin's teaching of "a cash bonus" is not the same as sharing a portion of a cost savings, since there is no express disclosure of a cost savings (bonus could be solely for practicing better or performing some less expensive procedures). Yasin also does not suggest the reward being a portion or percentage of the cost savings realized. Under the presently claimed method, the more the health service provider saves the greater portion he would receive. This is not the same as Yasin's ambiguous "cash bonus" that may be provided to physicians who either practice better or perform less invasive procedures.

Moreover, Yasin fails to disclose a budgeted average cost per episode that the physician must keep his actual cost below to qualify for a portion of the cost savings. The present claims provide the physician with the budgeted average cost per episode as a target or incentive for the physician to maintain costs below. Contrary to Yasin, the presently claimed method provides an incentive that ensures actual cost savings, in providing the physician with budgeted average cost per episode and a portion of the savings the physician achieves relative to the budgeted average cost per episode. The Appellant submits that Yasin's ambiguous teaching of "encouraging is contracting doctors to practice better and to use less invasive, less expensive medical procedures by rewarding those who do with a cash bonus" does not make it "obvious to try" combining the teachings of Torma, Lockwood and Yasin in a manner that would result in the fashion claimed by the Appellant. The Supreme Court has stated that to support an "obvious to try" reasoning, there must be an apparent reason to combine the known elements in the references in a manner that would result in the fashion claimed by the patent application at issue. *KSR International Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 14 (U.S. Apr. 30, 2007).

Thus, the Appellants submit that the references themselves *fail to provide a motivation to combine or modify the references in a manner that would result in the fashion claimed in the present application*, which is an omission of an essential element needed for a prima facie obviousness rejection of claims 1, 10, 18 and 34.

II. The Combined References Fail to Teach or Suggest all the Claim Limitations

Independent Claims 1, 10, 18 and 34

Appellants initially note that the references relied upon for the sole rejection now under appeal fail to disclose all the claimed limitations. Specifically, neither Torma nor Lockwood teach nor suggest the following claimed features:

- periodically distributing information on the average cost per episode to the health service provider
- sharing a portion of cost savings resulting from a reduction in cost per episode, as an incentive method of reducing actual cost below the average cost per episode distributed to the service provider

In the present case, Torma discloses a method that allows for comparing military medical costs on a per patient basis with similar costs in civilian hospitals or other military treatment facilities. Torma further discloses that where a clinic is performing below average and only two physicians are the cause, then actions can be implemented to change the practice patterns of the two physicians. (See Torma, column 7 lines 43-45, column 9 lines 39-46, can column 12 lines 36-41)

Lockwood discloses that in instances where there has been a budgetary overrun and the quality performance percentage associated with treating a selected condition is below the industry standard, the administrator may take

corrective action by instructing the providers to improve the quality or efficiency of their performance. (See Lockwood, column 13, lines 5-11 and lines 30-39).

With regard to Yasin, this reference teaches encouraging doctors to "practice better and use less invasive, less expensive medical procedures" or "rewarding those who did with a cash bonus" does not suggest the claimed limitations, since doctors are rewarded with "a cash bonus" if they "practice better" or use "less expensive medical procedures". (Yasin, p.8, ¶ 2). This suggests that doctors may receive a bonus merely for practicing better, by providing better quality, for example. The suggestion that doctors use "less expensive medical procedures" and receive a cash bonus does not suggest the claimed feature of sharing a portion of cost savings with the doctor, since there is no guarantee that doctors who perform some less expensive procedures will achieve an actual cost savings in their overall average cost per service episode relative to a predetermined budgeted average cost per service episode. Yasin only suggests rewarding those doctors who practice better with a cash bonus, without any indication of whether the doctor has achieved a cost savings.

Since Torma and Lockwood teach the implementation of changes to improve the quality or quality performance percentage, and Yasin teaches providing a bonus to doctors that "practice better", the references fail to disclose or suggest all of the claim limitations, naming the sharing with a physician group a portion of cost savings between the average cost per service episode relative to a predetermined budgeted average cost per service episode, as an incentive to reduce health care costs.

Independent Claim 18

Furthermore, claim 18 recites a method in which the portion of savings shared with the health service provider group depends upon the group's performance on a quality and/or patient satisfaction indicator. Neither Torma nor Lockwood teach or suggest a method for motivating health service providers that includes sharing a portion of cost savings in service episodes, which portion is based upon the group's performance on a quality and/or patient satisfaction indicator. As such, the Appellants further submit that 18 is also non-obvious in view of Torma or Lockwood.

Independent Claim 1 and Dependent Claim 46

Appellant further submits that none of the references disclose the feature in claims 1 and 46 of periodically distributing information on the average cost per episode to the health service provider. In rejecting claim 46, the Office Action states that Lockwood discloses the step of periodically distributing information on the average cost per service episode to the provider, and refers the Appellant to Lockwood, Col. 13, lines 30-39, which states:

"In instances where there has been a budgetary overrun and the quality performance percentage associated with treating the selected condition (from step 210) is below the industry standard, this fact is signaled to the network administrator through workstation 90. The administrator may then take corrective action by, for example instructing the providers in the network to schedule and perform further procedures so as to improve the quality performance percentage of the network as a whole for the selected condition".

The Appellant notes that Lockwood does not teach periodically distributing information on average cost per episode to the health service provider. Rather, Lockwood only teaches the communication of quality performance percentages to an administrator for the purpose of improving the quality performance percentage. The Appellant accordingly submits that Lockwood does not disclose or even suggest such a feature, and that claims 1 and 46 cannot be obvious in view of Lockwood.

Thus, the Appellants submit that the references themselves *fail to disclose all of the claimed elements*, which is an omission of an essential element needed for a prima facie Obviousness rejection.

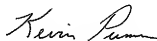
Dependent Claims 2-9, 11-17, 19-33, and 35-46

With regard to claims 2-9, 11-17, 19-33, and 35-46, these claims ultimately depend from claims 1, 10, 18 or 34, which Appellants believe to be non-obvious and allowable in view of the above remarks. As such, the Appellants submit that claims 2-9, 11-17, 19-33, and 35-46, are also non-obvious and allowable for at least these reasons.

CONCLUSION

Appellant respectfully submits that the Examiner has not shown that claims 1-46 are obvious over Lockwood in view of Torma and in further view of (The Status Of TQM In Health Care, Health Marketing Quarterly; New York; 1998 by Yasin, Mahmoud M.). Accordingly, reversal of the rejection of Claims 1 - 46 is respectfully requested.

Respectfully submitted,



Kevin M. Pumm, Reg. No. 49,046
Harness, Dickey & Pierce, P.L.C.
7700 Bonhomme Avenue, Suite 400
St. Louis, MO 63105
(314) 726-7500

Date: July 22, 2007

CLAIMS APPENDIX
UNDER 37 C.F.R. § 41.37(c)(1)(viii)

1. (Previously Presented) A method of compensating a health service provider providing health services in service episodes to health plan members, the method comprising sharing a portion of the cost savings resulting from the provider's reduction of actual average cost per service episode compared to a predetermined budgeted average cost per service episode, the portion depending in part upon the provider's average cost per service episode compared to an average cost per service episode of providers to the members, and in part upon the provider's performance on at least one of a quality measure and a member satisfaction measure, wherein information on the average cost per service episode is periodically distributed to the health service provider, for motivating the health service provider to more efficiently manage service episodes to keep their cost per service episode below the predetermined budgeted average.

2. (Original) The method according to claim 1 wherein the provider's actual average cost per service episode and the budgeted average cost per service episode are indexed to the same level of episode severity before comparison.

3. (Original) The method according to claim 1 wherein the provider's actual average cost per service episode and the average cost per service episode of care of providers to the members of the health plan are indexed to the same level

of episode severity before comparison.

4. (Original) The method according to claim 1 wherein the portion of the cost savings shared with the provider depends upon whether the provider's average cost per service episode is above or below the median average cost per service episode of care of providers to the members of the health plan.

5. (Original) The method according to claim 1 wherein the portion of the cost savings shared with the provider depends in part upon the provider's performance on a quality measure.

6. (Original) The method according to claim 1 wherein the portion of the cost savings shared with the provider depends in part upon the provider's performance on a member satisfaction measure.

7. (Original) The method according to claim 1 wherein the portion of the cost savings shared with the provider depends in part upon the provider's performance on a measure of quality measure and member satisfaction.

8. (Original) The method according to claim 1 wherein the service provider is a group of individuals.

9. (Original) The method according to claim 1 wherein the service provider is a

group of individuals in a particular medical specialty, and wherein the comparison between the provider's average cost per service episode and an average cost per service episode of care of providers providing service to the members of the health plan is made with providers in the same medical specialty.

10. (Original) A method of compensating a group of physicians providing health services in service episodes to health plan members, the method comprising sharing a portion of the cost savings resulting from the reduction of the group's actual average cost per service episode compared to a predetermined budgeted average cost per service episode, the portion depending in part upon the group's average cost per service episode compared to an average cost per service episode of groups providing service to the members, and in part upon the group's performance on at least one of a quality measure and a member satisfaction measure.

11. (Original) The method according to claim 10 wherein the group's actual average cost per service episode and the group's budgeted average cost per service episode are indexed to the same level of episode severity before comparison.

12. (Original) The method according to claim 10 wherein the group's actual average cost per service episode and the average cost per service episode of care of the group's serving the health plan members are indexed to the same

level of episode severity before comparison.

13. (Original) The method according to claim 10 wherein the portion of the cost savings shared with the group depends upon whether the group's average cost per service episode is above or below the mean of the average cost per service episode of care of groups providing the same type of health service to the members of the health plan.

14. (Original) The method according to claim 10 wherein the portion of the cost savings shared with the group depends in part upon the group's performance on a quality measure.

15. (Original) The method according to claim 10 wherein the portion of the cost savings shared with the provider depends in part upon the group's performance on a member satisfaction measure.

16. (Original) The method according to claim 10 wherein the portion of the cost savings shared with the provider depends in part upon the group's performance on a quality measure and a member satisfaction measure.

17. (Original) The method according to claim 10 wherein the group is a group of individuals in a particular medical specialty, and wherein the comparison between the group's average cost per service episode and the average cost per

service episode of care of groups providing service to the members of the health plan is made only with groups in the same medical specialty.

18. (Original) A method of compensating physicians for managing the cost and quality of health care services provided to members of a health plan served by a plurality of physician groups, the method comprising: developing a budgeted cost per episode of patient for a program period for at least one physician group based at least in part on the historic actual performance of the group; compiling data on actual cost per episode of patient care during the program period; comparing the group's actual cost per episode of patient care during the program period with the group's budgeted cost per episode of patient care for the program period, adjusted for changes in the severity of illness of the patients treated; sharing a portion of the savings resulting from a reduction in actual cost per episode of patient care with the group, the portion depending upon the group's performance on a quality and/or patient satisfaction indicator.

19. (Original) The method according to claim 18 wherein the sharing of a portion of the savings is also dependent on the group's performance relative to other physicians.

20. (Original) The method according to claim 19 wherein the sharing of a portion of the savings of a group is dependant on a comparison of a measure of the group's cost per episode of patient care with a measure of other physicians' cost

per episode of patient care.

21. (Original) The method according to claim 20 wherein the measure of the group's cost per episode of patient care and the measure of other physicians' cost per episode of patient care is indexed to the same level of episode severity before comparison.

22. (Original) The method according to claim 18 wherein the portion of savings shared with the group depends upon the group's performance on a quality indicator relative to other physicians' performance on the quality indicator.

23. (Original) The method according to claim 18 wherein the quality indicator includes a measurement of the number of patients with a particular diagnosis receiving a particular treatment.

24. (Original) The method according to claim 18 wherein the quality indicator includes a measurement of the number of patients with a particular diagnosis not receiving a particular treatment.

25. (Original) The method according to claim 18 wherein the quality indicator includes a measurement based on survey responses of plan members treated by the group.

26. (Original) The method according to claim 18 wherein a group's budgeted cost per episode of patient care is determined based at least in part on the historic performance of the individual physicians in the group.

27. (Original) The method according to claim 26 wherein the weight given to the historic performance of an individual physician in the group depends upon that physician's total number of episodes of care.

28. (Original) The method according to claim 26 wherein the weight given to the historic performance of an individual physician in the group depends upon the physician's number of episodes of care and the physician's medical specialty.

29. (Original) The method according to claim 18 wherein the budgeted cost per episode of patient care and the actual cost per episode of patient care exclude outpatient prescription pharmaceuticals.

30. (Original) The method according to claim 18 wherein the comparison between group's actual cost per episode of patient care during the program period with the group's budgeted cost per episode of patient care for the program period, is adjusted to take into account inflation between the time of the budget and the program period.

31. (Original) The method according to claim 30 wherein the adjustment to take

into account inflation is implemented by increasing the group's budgeted cost per episode of patient care.

32. (Original) The method according to claim 30 wherein the adjustment to take into account inflation is implemented by decreasing the group's actual cost per episode of patient care.

33. (Original) The method according to claim 18 wherein the adjustment for changes in the severity of illness of the patients treated comprises indexing the relative costs of the episodes of care used in determining budgeted cost per episode of patient care, and the relative costs of the episodes of care used in determining the actual cost per episode of patient care.

34. (Original) A method managing the cost of health services provided to members of a health plan served by a plurality of physician groups, by compensating physician groups for managing the cost and quality of health care services, the method comprising: sharing with a group a portion of the cost savings resulting from that group's reduction in the cost episode of patient care during a period from a predetermined budgeted cost per episode of patient care for that period, the portion being determined at least in part by the group's performance on a quality and/or patient satisfaction indicator.

35. (Original) The method according to claim 34 wherein the portion is

determined by the group's performance on a quality indicator relative to other physician's performance on that quality indicator.

36. (Original) The method according to claim 34 wherein the budgeted cost per episode of patient care is based at least in part upon the group's historical performance.

37. (Original) The method according to claim 36 wherein the weight give to a group's historical performance depends upon the number of years of data for the group.

38. (Original) The method according to claim 37 wherein the weight given to a group's historical performance depends upon the number of years of data for the group and the group's specialty.

39. (Original) The method according to claim 36 wherein the weight given to the historic performance of an individual physician in the group depends upon the physician's number of episodes of care and the physician's medical specialty.

40. (Original) The method according to claim 36 wherein the budgeted cost per episode of patient care is based in part on the historic performance of the individual physicians in the group.

41. (Original) The method according to claim 34 wherein the quality indicator includes a measurement of the number of patients with a particular diagnosis receiving a particular treatment.

42. (Original) The method according to claim 34 wherein the sharing of a portion of the savings is also dependent on the group's performance relative to other physicians

43. (Original) The method according to claim 42 wherein the sharing of a portion of the savings of a group is dependant on a comparison of a measure of the group's cost per episode of patient care with a measure of other physician's cost per episode of patient care.

44. (Original) The method according to claim 34 wherein the quality indicator includes a measurement of the number of patients with a particular diagnosis not receiving a particular treatment.

45. (Original) The method according to claim 34 wherein the quality indicator includes a measurement based on survey responses of plan members treated by the group.

46. (Previously Presented) The method according to claim 1 further comprising the step of periodically distributing information on the average cost per service

episode to the health service provider, for motivating the health service provider to more efficiently manage service episodes to keep their cost per service episode below the predetermined budgeted average.

EVIDENCE APPENDIX

UNDER 37 C.F.R. § 41.37(c)(1)(IX)

- A copy of the most recent Office Action mailed July 16, 2007 placing the presently pending claims 1 - 46 of the present application under rejection is provided.

RELATED PROCEEDINGS APPENDIX - UNDER 37 C.F.R. § 41.37(c)(1)(x)

NONE.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1459
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/922,297

08/03/2001

Jane I. Potter

4371-000002

9688

7590 07/16/2007
Bryan K. Wheelock
Harness, Dickey & Pierce, P.L.C.
Suite 400
7700 Bonhomme
St. Louis, MO 63105

EXAMINER

FRENEL, VANEL

ART UNIT

PAPER NUMBER

3627

MAIL DATE

DELIVERY MODE

07/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/922,297

Applicant(s)

POTTER ET AL.

Examiner

Vanel Frenel

Art Unit

3627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the Appeal Brief filed on 3/06/07. Claims 1-46 are pending.

2. In view of the Appeal Brief filed on 3/06/07, PROSECUTION IS HEREBY REOPENED as set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 C.F.R. 1.111 (if this Office action is non-final) or a reply under 37 C.F.R. 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal is requested, such request must be accompanied by a supplement appeal brief, but no new amendments, affidavits (37 C.F.R. 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193)
(b)(2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all, obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torma et al in view of Lockwood et al (5,845,254) and further in view of (The status of TQM in healthcare, Health Marketing Quarterly; New York; 1998 by Yasin, Mahmoud M; Meacham, Katherine A; Alavi, Jafar.

(A) As per claim 1, Torma discloses the method comprising sharing a portion of the cost savings resulting from the provider's reduction of actual average cost per service episode compared to a predetermined budgeted average cost per service episode (See Torma, Col.9, lines 6-48).

Torma does not explicitly disclose that the method having a portion depending in part upon the provider's average cost per service episode compared to an average cost per service episode of providers to the members, and in part upon the provider's performance on at least one of a quality measure and a member satisfaction measure.

However, this feature is known in the art, as evidenced by Lockwood. In particular, Lockwood suggests that the method having a portion depending in part upon the provider's average cost per service episode compared to an average cost per service episode of providers to the members, and in part upon the provider's performance on at least one of a quality measure and a member satisfaction measure (See Lockwood, Col.12, lines 67 to Col.14, line 15; Col.14, lines 1-17).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Lockwood within the system of Torma with the motivation of providing a cost efficiency performance level which is determined for each individual health-care provider within the group of healthcare providers from the plurality

of severity-adjusted sickness episode data records, and a qualitative performance level which determined for the group of healthcare providers as a whole (See Lockwood, Col.5, lines 41-47).

Torma and Lockwood do not explicitly disclose a method of compensating a health service provider providing health services in service episodes to health plan members.

However, this feature is known in the art, as evidenced by Yasin. In particular, Yasin suggests a method of compensating a health service provider providing health services in service episodes to health plan members (See Yasin, Page 8, Paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Yasin within the collective teachings of Torma and Lockwood with the motivation of encouraging contracting doctors to practice better and use less invasive, less expensive medical procedures by rewarding those who do with cash bonuses at the end of the year (See Yasin, Page 8, Paragraph 2).

(B) As per claim 2, Lockwood discloses the method wherein the provider's actual average cost per service episode and the budgeted average cost per service episode are indexed to the same level of episode severity before comparison (See Lockwood, Col.10, lines 55-67 to Col.11, line 30).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claim 1 above, and incorporated herein.

(C) As per claim 3, Lockwood discloses the method wherein the provider's actual average cost per service episode and the average cost per service episode of care of providers to the members of the health plan are indexed to the same level of episode severity before comparison (See Lockwood, Col.11, lines 1-31).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claim 1 above, and incorporated herein.

(D) As per claim 4, Torma discloses the method wherein the portion of the cost savings shared with the provider depends upon whether the provider's average cost per service episode is above or below the median average cost per service episode of care of providers to the members of the health plan (See Torma, Col.7, lines 43-68 to Col.8, line 59).

(E) As per claim 5, Torma discloses the method wherein the portion of the cost savings shared with the provider depends in part upon the provider's performance on a quality measure (See Torma, Col.7, lines 43-68 to Col.8, line 59).

(F) As per claim 6, Lockwood discloses the method wherein the portion of the cost savings shared with the provider depends in part upon the provider's performance on a member satisfaction measure (See Lockwood, Col.12, lines 67 to Col.14, line 15; Col.14, lines 1-17).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claim 1 above, and incorporated herein.

(G) As per claim 7, Lockwood discloses the method wherein the portion of the cost savings shared with the provider depends in part upon the provider's performance on a measure of quality measure and member satisfaction (See Lockwood, Col.12, lines 67 to Col.14, line 15; Col.14, lines 1-17).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claim 1 above, and incorporated herein.

(H) As per claim 8, Torma discloses the method wherein the service provider is a group of individuals (See Torma, Col.5, lines 20-68).

(I) As per claim 9, Lockwood discloses the method wherein the service provider is a group of individuals in a particular medical specialty, and wherein the comparison between the provider's average cost per service episode and an average cost per service episode of care of providers providing service to the members of the health plan is made with providers in the same medical specialty (See Lockwood, Col.54-67 to Col.8, lines 17).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claim 1 above, and incorporated herein.

(J) As per claim 10, Torma discloses the method comprising sharing a portion of the cost savings resulting from the reduction of the group's actual average cost per service episode compared to a predetermined budgeted average cost per service episode (See Torma, Col.9, lines 6-48).

Torma does not explicitly disclose that the portion depending in part upon the group's average cost per service episode compared to an average cost per service episode of groups providing service to the members, and in part upon the group's performance on at least one of a quality measure and a member satisfaction measure.

However, this feature is known in the art, as evidenced by Lockwood. In particular, Lockwood suggests that the portion depending in part upon the group's average cost per service episode compared to an average cost per service episode of groups providing service to the members, and in part upon the group's performance on at least one of a quality measure and a member satisfaction measure (See Lockwood, Col.12, lines 67 to Col.14, line 15; Col.14, lines 1-17).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Lockwood within the system of Torma with the motivation of providing a cost efficiency performance level which is determined for each individual health-care provider within the group of healthcare providers from the plurality of severity-adjusted sickness episode data records, and a qualitative performance level which determined for the group of healthcare providers as a whole (See Lockwood, Col.5, lines 41-47).

Torma and Lockwood do not explicitly disclose a method of compensating a health service provider providing health services in service episodes to health plan members.

However, this feature is known in the art, as evidenced by Yasin. In particular, Yasin suggests a method of compensating a health service provider providing health services in service episodes to health plan members (See Yasin, Page 8, Paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Yasin within the collective teachings of Torma and Lockwood with the motivation of encouraging contracting doctors to practice better and use less invasive, less expensive medical procedures by rewarding those who do with cash bonuses at the end of the year (See Yasin, Page 8, Paragraph 2).

(K) As per claim 18, Torma discloses the method comprising: developing a budgeted cost per episode of patient for a program period for at least one physician group based at least in part on the historic actual performance of the group (See Torma, Col.12, lines 42-68);

compiling data on actual cost per episode of patient care during the program period (See Torma, Col.8, lines 6-67);

comparing the group's actual cost per episode of patient care during the program period with the group's budgeted cost per episode of patient care for the program period, adjusted for changes in the severity of illness of the patients treated (See Torma, Col.8, lines 6-68).

Torma does not explicitly disclose that the method having sharing a portion of the savings resulting from a reduction in actual cost per episode of patient care with the group, the portion depending upon the group's performance on a quality and/or patient satisfaction indicator.

However, this feature is known in the art, as evidenced by Lockwood. In particular, Lockwood suggests that the method having sharing a portion of the savings resulting from a reduction in actual cost per episode of patient care with the group, the portion depending upon the group's performance on a quality and/or patient satisfaction indicator (See Lockwood, Col.12, lines 54- 67 to Col.14, line 15; Col.14, lines 1-17).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Lockwood within the system of Torma with the motivation of providing a cost efficiency performance level which is determined for each individual health-care provider within the group of healthcare providers from the plurality of severity-adjusted sickness episode data records, and a qualitative performance level which determined for the group of healthcare providers as a whole (See Lockwood, Col.5, lines 41-47).

Torma and Lockwood do not explicitly disclose a method of compensating a health service provider providing health services in service episodes to health plan members of a health plan served by a plurality of physician groups.

However, this feature is known in the art, as evidenced by Yasin. In particular, Yasin suggests a method of compensating a health service provider providing health

Art Unit: 3627

services in service episodes to health plan members of a health plan served by a plurality of physician groups (See Yasin, Page 8, Paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Yasin within the collective teachings of Torma and Lockwood with the motivation of encouraging contracting doctors to practice better and use less invasive, less expensive medical procedures by rewarding those who do with cash bonuses at the end of the year (See Yasin, Page 8, Paragraph 2).

(L) As per claim 19, Lockwood discloses the method wherein the sharing of a portion of the savings is also dependent on the group's performance relative to other physicians (See Lockwood, Col.15, lines 30-67).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(M) As per claim 20, Lockwood discloses the method wherein the sharing of a portion of the savings of a group is dependant on a comparison of a measure of the group's cost per episode of patient care with a measure of other physicians' cost per episode of patient care (See Lockwood, Col.15, lines 1-56).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(N) As per claim 21, Lockwood discloses the method wherein the measure of the group's cost per episode of patient care and the measure of other physicians' cost per episode of patient care is indexed to the same level of episode severity before comparison (See Lockwood, Col.5, lines 28-47).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(O) As per claim 22, Lockwood discloses the method wherein the portion of savings shared with the group depends upon the group's performance on a quality indicator relative to other physicians' performance on the quality indicator (See Lockwood, Col.4, lines 14-40).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(P) As per claim 23, Lockwood discloses the method wherein the quality indicator includes a measurement of the number of patients with a particular diagnosis receiving a particular treatment (See Lockwood, Col.4, lines 14-56).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(Q) As per claim 24, Lockwood discloses the method wherein the quality indicator includes a measurement of the number of patients with a particular diagnosis not receiving a particular treatment (See Lockwood, Col.7, lines 42-67).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(R) As per claim 25, Lockwood discloses the method wherein the quality indicator includes measurement based on survey responses of plan members treated by the group (See Lockwood, Col.12, lines 35-67).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(S) As per claim 26, Lockwood discloses the method wherein a group's budgeted cost per episode of patient care is determined based at least in part on the historic performance of the individual physicians in the group (See Lockwood, Col.12, lines 4-34).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(T) As per claim 27, Lockwood discloses the method wherein the weight given to the historic performance of an individual physician in the group depends upon that physician's total number of episodes of care (See Lockwood, Col.11, lines 1-31).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(U) As per claim 28, Lockwood discloses the method wherein the weight given to the historic performance of an individual physician in the group depends upon the physician's number of episodes of care and the physician's medical specialty (See Lockwood, Col.6, lines 35-67; Col.9, lines 33-67).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(V) As per claim 29, Lockwood discloses the method wherein the budgeted cost per episode of patient care and the actual cost per episode of patient care exclude

Art Unit: 3627

outpatient prescription pharmaceuticals (The Examiner interprets medical facilities to be a form of outpatient prescription pharmaceuticals See Torma, Col.7, lines 43-68).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(W) As per claim 30, Lockwood discloses the method wherein the comparison between group's actual cost per episode of patient care during the program period with the group's budgeted cost per episode of patient care for the program period, is adjusted to take into account inflation between the time of the budget and the program period (See Lockwood, Col.12, lines 35-67).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(X) As per claim 31, Lockwood discloses the method wherein the adjustment to take into account inflation is implemented by increasing the group's budgeted cost per episode of patient care (See Lockwood, Col.5, lines 1-22).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

Art Unit: 3627

(Y) As per claim 32, Lockwood discloses the method wherein the adjustment to take into account inflation is implemented by decreasing the group's actual cost per episode of patient care (See Lockwood, Col.4, lines 29-56).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10 and 18 above, and incorporated herein.

(Z) As per claim 33, Torma discloses the method wherein the adjustment for changes in the severity of illness of the patients treated comprises indexing the relative costs of the episodes of care used in determining budgeted cost per episode of patient care, and the relative costs of the episodes of care used in determining the actual cost per episode of patient care (See Torma, Col.8, lines 6-68).

(AA) As per claim 34, Torma discloses a method managing the cost of health services provided to members of a health plan served by a plurality of physician groups (See Torma, Col.6, lines 47-61).

Torma does not explicitly disclose that the method having sharing with a group a portion of the cost savings resulting from that group's reduction in the cost episode of patient care during a period from a predetermined budgeted cost per episode of patient care for that period, the portion being determined at least in part by the group's performance on a quality and/or patient satisfaction indicator.

However, this feature is known in the art, as evidenced by Lockwood. In particular, Lockwood suggests that the method having sharing with a group a portion of the cost savings resulting from that group's reduction in the cost episode of patient care during a period from a predetermined budgeted cost per episode of patient care for that period, the portion being determined at least in part by the group's performance on a quality and/or patient satisfaction indicator (See Lockwood, Col.12, lines 54- 67 to Col.14, line 15; Col.14, lines 1-17).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Lockwood within the system of Torma with the motivation of providing a cost efficiency performance level which is determined for each individual health-care provider within the group of healthcare providers from the plurality of severity-adjusted sickness episode data records, and a qualitative performance level which determined for the group of healthcare providers as a whole (See Lockwood, Col.5, lines 41-47).

Torma and Lockwood do not explicitly disclose by compensating physician groups for managing the cost and quality of health care services.

However, this feature is known in the art, as evidenced by Yasin. In particular, Yasin suggests by compensating physician groups for managing the cost and quality of health care services (See Yasin, Page 8, Paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the feature of Yasin within the collective teachings of Torma and Lockwood with the motivation of encouraging contracting doctors to practice better

and use less invasive, less expensive medical procedures by rewarding those who do with cash bonuses at the end of the year (See Yasin, Page 8, Paragraph 2).

(BB) As per claim 37, Lockwood discloses the method wherein the weight give to a group's historical performance depends upon the number of years of data for the group (See Lockwood, Col.10, lines 3-54).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10, 18 and 34 above, and incorporated herein.

(CC) As per claim 38, Lockwood discloses the method wherein the weight given to a group's historical performance depends upon the number of years of data for the group and the group's specialty (See Lockwood, Col.10, lines 3-54).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10, 18 and 34 above, and incorporated herein.

(DD) Claims 11-17, 35-36 and 39-45 recite the underlying process steps of the elements of claims 2-7, 9, 19-26 and 28 respectively. As the various elements of claims 2-7, 9, 19-26 and 28 have been shown to be either disclosed by or obvious in view of the collective teachings of Torma and Lockwood, it is readily apparent that the method by the applied prior art performs the recited underlying functions. As such, the

limitations recited in claims 11-17, 35-36 and 39-45 are rejected for the same reasons given above for method claims 2-7, 9, 19-26 and 28, and incorporated herein.

(EE) As per claim 46, Yasin discloses the method further comprising the step of periodically distributing information on the average cost per service episode to the health service provider, for motivating the health service provider to more efficiently manage episodes to keep their cost per service episode below the predetermined budgeted average (See Yasin, Page 8, Paragraphs 6-8).

The motivation for combining the respective teachings of Torma, Lockwood and Yasin are as discussed in the rejection of claims 1, 10, 18 and 34 above, and incorporated herein.

Response to Arguments

5. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not the applied art teaches method and system for generating statistically-based medical provider utilization profiles (6,223,164) and method and system for management of patient accounts (2002/0026328).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanel Frenel whose telephone number is 571-272-6769. The examiner can normally be reached on Monday-Thursday from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zeender, Ryan Florian can be reached on 571-272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vanel Frenel

Art UNIT 3627

July 3, 2007

ProQuest Return to NPL Web Page ? Help

[Collections](#)
[Search Methods](#)
[Topic Finder](#)
[Browse Titles](#)

[Results](#)
[Search Guide](#)

Searching collection: All Collections Article Display

[Email Article](#)
[Print Article](#)
[Save Link](#)

Article 63 of 100 [Publisher Info](#)

☐ Mark article
 Article format: Text+Graphics

[Save Link](#) Saves this document as a Durable Link under "Results-Marked List"

The status of TQM in healthcare

Health Marketing Quarterly; New York; 1998; Yasin, Mahmoud M; Meacham, Katherine A; Alavi, Jafar;

Volume: 15
Issue: 3
Start Page: 61-84
ISSN: 07359683
Subject Terms: [Health care industry](#)
[Studies](#)
[Total quality](#)
[Benchmarks](#)
[Industrywide conditions](#)

Classification Codes: 9190: US
 8320: Health care industry
 9130: Experimental/theoretical treatment
 5320: Quality control

Geographic Names: US

Abstract:

The face of the healthcare industry has changed dramatically over the last few years. A study examines the literature related to Total Quality Management (TQM) and Benchmarking (BM) applications in healthcare. Recommendations for healthcare managers and administrators, as they chart operational and strategic directions for their organization, are provided. In this context, a conceptual framework which stresses the significance of viewing the healthcare organization as an open system is provided. The framework underscores the fact that TQM and BM efforts should not be viewed in isolation. Rather, these efforts should be viewed as an integral part of the operational and strategic facets of the healthcare organization.

Full Text:

Copyright Haworth Press, Inc. 1998

[Headnote]

ABSTRACT. The face of the healthcare industry has changed dramatically over the last few years. This study examines the literature related to Total Quality Management (TQM) and Benchmarking (BM) applications in healthcare. Recommendations for healthcare managers and administrators, as they chart operational and strategic directions for their organization, are provided. In this context, a conceptual framework which stresses the significance of viewing the healthcare organization as an open system is provided. The framework underscores the fact that TQM and BM efforts should not be viewed in isolation. Rather, these efforts should be viewed as an integral part of the operational and strategic facets of the healthcare organization. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com]

BACKGROUND

"America's healthcare system is in turmoil" (Fried, 1992, p. 67). In 1992, Americans spent more than \$600 billion on healthcare (Fried, 1992). If the current healthcare expenditure pattern holds, the United States will be spending 18 percent of Gross National Product on healthcare by the year 2000 (Geber, 1992). These numbers alarm everyone, especially the hospital administrators (Geber, 1992), as administrative overhead is the most rapidly growing segment of healthcare costs (Fried, 1992).

The attention that President Clinton has brought to this area with his healthcare reform legislation has already had some effect with regard to stressing cost containment efforts (Slomski, 1994). Cost containment begins with reducing the "fat" in the healthcare system (Slomski, 1994). This process includes the reduction in administration costs, physician costs, unnecessary procedures, hospital stays, and an overall shift to managed care (Geber, 1992). However, in many cases more than "trimming the fat" is needed. Tools and managerial philosophies to reduce the waste, inefficiency and mistakes are needed. Such philosophies and tools include, among others, Total Quality Management (TQM) and Benchmarking (BM).

This study examines the need for quality initiatives by healthcare organizations, the barriers to implementing TQM in healthcare settings, and the requirements for TQM success. Recommendations for healthcare organizations, as they continue to refine their total quality efforts are offered. In the process, the role of benchmarking in achieving that end is stressed. Finally, a practical conceptual framework is provided to guide this analysis. The framework is designed to offer healthcare managers and administrators a systematic and an organizational approach to their TQM and BM efforts.

LITERATURE REVIEW

New Realities and Managerial Philosophy

Healthcare is a service every person needs sooner or later (Nance, 1995). With the increasing cost of healthcare in the 1990s, a new vocabulary has emerged that defines, describes and elaborates on previous jargon in the healthcare industry. Terms such as, Health Management Organizations or HMOs, Health Care Organizations or HCOs, Managed Care and Primary Physician Organizations or PPOs are redefining the nature and the scope of the healthcare marketplace. In such a marketplace, the healthcare organization is no longer the local doctor down the street. The increasing cost of equipment, education, staff and technology is contributing significantly to the new realities of the healthcare marketplace (Nance, 1995).

In order to continue the efforts for containing and reducing healthcare cost, the healthcare industry must adopt a total quality management orientation (Geber, 1992). Anderson C. (1992) writes that the globalization of quality issues is driving America's healthcare to think beyond technology and effective outcomes. Fried states that, "clearly there is a crisis in the American healthcare system" (1992, p. 67). He agrees with Geber in that Continuous Quality Improvement (CQI) and Total Quality Management (TQM) are opportunities to contain and reduce healthcare cost. Lawrence and Early also underscore the role of quality initiatives as they state that "quality initiatives might be the healthcare industry's best chance to deal with costs" (1992, p. 46).

Applying TQM in a healthcare setting is a challenge which has not been easily met by many healthcare organizations (Nance, 1995). In this context, healthcare organizations can learn from other industries by recognizing the characteristics and practices of the best and most successful total-quality organizations. Burke writes, "hospitals are learning that quality improvement techniques borrowed from other businesses not only help improve quality of care, but also help lower costs and improve marketability" (1990, p. 68). "There are many technical, organizational and behavioral dimensions that characterize a leading quality organization," write Lawrence and Early (1992, p. 45). Looking solely at the Malcolm Baldrige National Quality Award Criteria, Lawrence and Early (1992) identify at least 89 areas that must be addressed. The Malcolm Baldrige Award is expanding to include non-profit and the healthcare organizations as part of a pilot program (NIST, 1995). The Baldrige effort is a positive development, yet as Mueller (1992) noted, the healthcare industry is significantly different from its manufacturing counterparts. For example, the healthcare industry is not assembly line oriented, and as such has many more barriers to the successful implementation of TQM (Mueller, 1992).

Barriers to Effective TQM

The quality efforts of any organization must incorporate quality into daily processes and organizational culture (Lopresti et al., 1993). In the case of healthcare organizations, a strategic transformation is needed for quality initiatives to be successful (Nance, 1995). However, there are some serious barriers to such transformation. The established mind-set of the healthcare profession is one of these serious barriers (Lopresti et al., 1993). The perception of the physician's role as leader and the definitions of successful outcomes are two key mind-set areas

3

that are challenging healthcare organizations attempting to implement quality initiatives (Lopresti et al., 1993). Thus, Lopresti and Whetstone (1993) conclude that quality education should begin in the medical classroom. Geber (1992) notes that, the hospital administration's key challenge is the fact that doctors are not employees of the hospitals, instead, they are customers of the administration process. In this context, doctors are the key suppliers of services to hospital patients, which typically justifies the pampering of doctors by the administration (Geber, 1992).

Therefore, time and effort must be invested to commit and involve doctors very early in the TQM process (Godfrey et al., 1992). It is believed that such investment is very much worthwhile, "time is an investment that will pay off later as doctors emerge as champions of processes that they understand and enjoy" (Godfrey et al., 1992, p. 25). Lopresti and Whetstone agree with this notion as they state, "the key to physician interest is stimulating their well-known curiosity about new processes" (1993, p. 36). Matherly and Lasater (1992) note that total quality management must start at the top of the administration with a full commitment and a strategic leadership vision which include physicians. Lawrence and Early suggest that the critical challenge for the top executive is to make the strategic choice to manage quality actively, including physicians, with detail to progress and continuous improvement.

Other barriers include the time required for TQM's successful implementation and the delay in its financial payoffs to the organization (Lopresti et al., 1993). Quality improvement efforts are not quick-fix projects, thus it may take many years for many healthcare institutions to achieve a TQM payoff. Lopresti and Whetstone (1993) note that the TQM implementation process may take up to five years. Many times, CEOs cannot wait for the long term payoffs, especially when they are dealing with declining Medicare reimbursements from the government, cost-containment pressures from the private sector and pressures to purchase the latest technology (Geber, 1992).

The high turn-over in the executive rank, with average tenure of 4 years, seems to be another barrier to successful TQM implementation (Geber, 1992). Gopalakrishnan and McIntyre note that the lack of job security might also be a serious roadblock for quality improvements in healthcare organizations (1992). If employees perceive the TQM intent to be the reduction of headcount, they will resist it (Lopresti et al., 1993). Morrison and Heineke (1992) note that the resistance to TQM changes in a hospital setting come from the self-confidence and sense of control physicians and nurses have in day to day dealings with failures in human health.

In spite of these barriers, TQM has a lot to offer to the healthcare industry. Fried states, "There are many daily processes within the healthcare system that are characterized by waste, rework, and unnecessary complexity" (1992, p. 68). It is suggested that healthcare organizations may have to start with a small, team-based, improvement process (Geber, 1992). In this context, even if a process is functioning, it can and should be improved (Lopresti et al., 1993).

Healthcare Standards and Regulations

In 1918, the American College of Surgeons began the profession's first formal quality initiative by creating minimum standards for patient medical record-keeping (Shapleigh, 1991). In the early 1950s, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) fostered quality control through its 10-step quality assurance model introduced to its member hospitals (Anderson C., 1992). The 10-step approach served as a guide to healthcare organizations in terms of changing the behaviors of individuals whose practices deviated from the acceptable norm (Anderson C., 1992). However, the effectiveness of these initiatives was not systematically tracked (Shapleigh, 1991).

In 1992, JCAHO required member hospitals to begin a quality improvement process in its "Agenda for Change" (Chaufournier et al., 1993). The new "Agenda for Change" called on member organizations to develop new approaches to respond to the challenges they faced (Anderson C., 1992). In addition, it directed organizations to switch to process-focused methods of quality assessment based on analysis of variations (Pasternak et al., 1993). Healthcare analysts felt that the "agenda" was a good start toward a TQM orientation (Chaufournier et al., 1993).

A 1993 survey revealed that only 44% of 1,083 United States JCAHO hospitals had adopted a systematic quality improvement management approach (Chaufournier et al., 1993). It is to be noted that the National Committee for Quality Assurance, the Accreditation Association for Ambulatory Healthcare, and the College of American Pathologists have their own internally derived quality criteria (Pasternak et al., 1993). Much of this effort is directed at managed-care group practices (Pasternak et al., 1993). State health departments, state pharmacy boards and professional boards mandate quality initiatives and activities (Pasternak et al., 1993). In spite of these efforts, by 1993, only a few more than 6000 U.S. hospitals have started to implement quality programs (Reeves et al., 1993). Therefore, it is suggested that in order to keep initiatives moving in the direction of a TQM orientation, influential organizations must continue to demand action (Reeves et al., 1993). Executives and healthcare professionals must

work together to develop strategic plans that focus on quality initiatives to ensure the future success of their organizations (Nance, 1995).

Requirements for Successful TQM Implementation

As physicians come together building business management teams and working together with the administration, the healthcare business becomes more efficient (Nance, 1995). To many healthcare organizations, efficiency means delivering higher service quality at a lower price (Fiegenbaum, 1992). Nance (1995) suggests that physicians will assume an active role in reorienting the healthcare industry, as it attempts to become more efficient, effective, committed to quality, and committed to continuous improvement efforts. For healthcare organizations to improve efficiency, many obstacles must be overcome. For that to happen, clearly defined structure, documented and shared understanding of operating processes, and continuous improvement based measures must become a significant part of the operating culture of the healthcare organization (Solovy 1993).

Appleby asserts, "whoever has the best quality will have the lowest costs and if you are not improving the quality of care, your future in this market is suspect" (1995, p. 32). For healthcare organizations to be able to contain and reduce cost, they must increase efficiency, and establish a clearly defined structure. A healthcare organization might need to change its organizational structure to better align it with the TQM strategy (Lawrence et al., 1992). One, however, needs to realize that organizations are unique, thus, what works for one organization may not work for others (Godfrey et al., 1992). Some elements of structure which are conducive to a TQM orientation are consistent across successful healthcare organizations, including the utilization of a quality director, quality councils, trained facilitators, processes for nominations and selection of quality projects to name a few (Godfrey et al., 1992). The structure of the organization must facilitate and promote a top-down TQM leadership approach (Reeves et al., 1993). In this context, Eubanks stresses the role of positive leadership, as he states that, "To transform the healthcare industry, we must transform our leaders" (1992, p. 34). In many cases, top managers may speak of a commitment to quality, however, their actions may not be consistent with their words (Reeves et al., 1993). Additionally, the need for commitment to the quality efforts from middle management is stressed. Often, it is this group that may feel most threatened by the organization's TQM effort (Reeves et al., 1993).

It is suggested that process ownership is a key to total quality management success and its organizational effectiveness (Gopalakrishnan et al., 1992). Process ownership should be clearly understood and accepted by all organizational members, especially owners of the process. In this context, process ownership should not be forced or imposed by the organization and its administration (Geber, 1992). Within the context of process ownership, the organization has the responsibility to provide training and education to employees (Gopalakrishnan et al., 1992). There are various training requirements which must be undertaken by the organization, before a TQM orientation can be implemented. Such training should be conducted on organization time and utilize a hands-on approach (Gopalakrishnan et al., 1992). TQM training efforts must be derived from and thus consistent with the TQM strategic effort (Godfrey et al., 1992; Reeves et al., 1993). In this context, Chesney and others state, "training employees by involving them in improvement projects based on real organizational problems makes the quality improvement principles and tools more meaningful and relevant" (1993, p. 28). Once training and education are provided, process owners must be designated (Jackson, 1992).

Due to complexities of the healthcare operating environment, there is no single person who fully understands the operational scope of all processes (Jackson, 1992). For example, different people within the organization understand things differently, depending on their positions and viewpoints (Jackson, 1992). Jackson states, "The patient, the admissions clerk, and the administrative physician would each have his/her own perception of the nature and role of a given process including how such a process should be measured" (1992, p. 62). Therefore, the need for the organization to analyze the process, describe the process, review the descriptions of the process to ensure understanding, before improvements can be initiated is stressed (Jackson, 1992). To accomplish this Jackson (1992) advocates the utilization of Process Analysis Techniques (PAT). It is suggested that process management can assist in reducing the rising cost of healthcare (Lawrence et al., 1992). Using a PAT approach, one hospital was able to cut x-ray retakes to a third, thus, saving tens of thousands of dollars in the process (Godfrey et al., 1992).

A similar approach was used by Riverside Methodist Hospital in Ohio. After asking critical process related questions, the process team analyzed hospital services with the following task and objectives in mind: (a) analyze the current process, (b) use measurements to document the process, (c) identify barriers in the process, (d) improve the process, and (e) continually evaluate and monitor the process after interventions (Claybaker et al., 1992). In this context, Koska (1996) stresses the need for each department to be actively involved in the analysis and improvements of its processes. Others stress the significance of creating and fostering an organizational atmosphere, where process improvements are considered an integral part of the workplace (Lopresti et al., 1993).

In addition to efficiency oriented measures, effectiveness oriented measures should also be stressed. In this context, some believe that, "By improving effectiveness, the hospital systematically provides higher-quality and more appropriate services" (Compte et al., 1995, p. 83). To improve effectiveness, healthcare organizations must promote quality as a shared strategic vision throughout the organization (Matherly et al., 1992). Additionally, a customer-focus and continuous measurement of quality progress are needed to improve the effectiveness of the organization (Fried, 1992).

Guided by organizational effectiveness, as an objective, the TQM effort must become an organizational shared vision (Gopalakrishnan et al., 1992). To achieve this end, it is recommended that top management evaluates the vision, mission and policies of the institution. Eubanks states, "top management can't lead a TQM initiative without changing their own behavior and structure of the organization ... the CEO must let go of power, end unilateral decision making and set measurable goals ... the CEO must use facts to make decisions" (1992, p. 25). Horizon Healthcare, a non-ownership alliance of three area hospitals in Milwaukee, utilizes physicians to set the agenda for short- and long-term projects, which are consistent with the vision of the organization (Anderson, H. 1992).

In this context, the vision of the organization must include a well communicated TQM philosophy (Reeves et al., 1993). As such, organizational members must have a clear understanding that TQM implementation is a long term project which focuses on customers, rather than a quick-fix (Reeves et al., 1993). Lopresti and Whetstone assert, "management must reinforce the idea that quality improvement applies to daily work and it takes time" (1993, p. 36).

To continue improving effectiveness of the healthcare organization, a strong customer focus is a must (Lawrence et al., 1992). Such focus is not easy to achieve, as the healthcare industry has a complex set of customers including patients, physicians, regulatory bodies, insurers, and employers (Orme et al., 1992). The success of any TQM strategy is dependent on its ability to attract and retain customers (Lawrence et al., 1992). Often, healthcare organizations do not meet their customers' expectations, when it comes to easy and quick access to healthcare (Lawrence et al., 1992). Hospitals must continue to improve customer service initiatives to remain competitive (Somers, 1994). In this context, Somers suggests that, "superior strategies from outside of the healthcare field can be adapted to improve performance of healthcare organizations" (1994, p. 69).

Not only the healthcare organizations must deal effectively with external customers, but they must also effectively deal with internal customers such as employees, administrators, and physicians among others. Gopalakrishnan and others suggest that these internal customers need to be recognized and rewarded. Thus, the reward management system of the organization must be carefully planned (Gopalakrishnan et al., 1992). In this context, healthcare organizations might need to change their reward systems to better align them with the TQM effort (Lawrence et al., 1992). Rewards do not need to be elaborate or expensive, but must be timely (Lawrence, 1992). It is suggested that TQM efforts, success, rewarding of success should go together (Lopresti et al., 1993). The recognition presented to recipients in front of peers might demonstrate visibly management's commitment to and support of the TQM effort (Reeves et al., 1993).

The healthcare industry has discovered that it might be difficult to manage what can't be measured (Godfrey et al., 1992). Measurement might make management exceptionally easier, at times, if the hidden becomes obvious (Godfrey et al., 1992). There are additional measures that compliment the bottom line measure, including patient satisfaction measurements, physician peer reviews and benchmark against competing healthcare organizations to determine "best practices" (Eubanks, 1992). Lynch states, "measures must link operations to strategic goals and the real value is the ability to focus all business activities on customer requirements" (1991, p. 6). Koska states, "as TQM is applied in hospitals, CEOs find that a focus on patients yields the most gratifying results" (1992, p. 46). Koska (1992) notes that the greatest improvements are those that improve customer satisfaction and have a positive impact on the patient's clinical outcome. In this context, Inguanzo states, "although most hospitals are in the early stages of TQM, they are already viewing patients in a more personal light and are working harder to meet their expectations."

The key to getting results regarding patient attitudes and perceptions is to identify the expectations as the patient enters the hospital (Inguanzo, 1992). Establishing Customer Information Systems (CIS) can assist the healthcare organization in collecting, archiving, and assessing customer information (Orme et al., 1992). Some authors argue that hospitals must invest in shaping patient expectations (Legnick-Hall, 1995). Inguanzo writes, "there is a gap between satisfaction and perception" (1992, p. 68). To close such a gap, healthcare organizations must pay attention to quality from design of services, to training of employees, to delivery of service, to customer evaluation (Murdick et al., 1990). Koska states, "patient-centered care is more than just being nice to patients" (1990, p. 48). In this context, patient-centered care means developing interventions that meet the patients' needs as the patients perceive them, not as the hospital thinks the patient perceives them (Koska, 1990). This requires not only collecting

data, but also utilizing it (Orme et al., 1992). Data related to customers, will assist the hospital in taking care of patients with the understanding, patience and care needed to enhance the patient's progress, and in turn help their health (Koska, 1990).

Inguanzo writes, the goal for the CEO and organization is not just to achieve the high levels of satisfaction but "to enhance the patient perceptions of the hospital along the key service lines or centers of excellence" (1992, p. 68). Legnick-Hall states, "Prior to the hospital stay, the young patient is given a tour of the hospital; meets the medical team; is told exactly what will occur during the operation; is made familiar with procedures; is told how he or she can expect to feel upon awakening through the recovery period; and is provided with realistic previews of what to expect" (1995, p. 34). This process can assist the young patient in planning their interaction with the hospital and assist the patient in developing clear expectations (Legnick-Hall, 1995). Nelson and others suggest that hospitals using low-cost quality improvement techniques could realize substantial improvements in patient perceived quality and ultimately in increased profitability (Nelson et al., 1992). A research study of 15,000 patients showed measurable improvements in patients' judgments of hospital quality translates into a better financial performance for the hospital (Nelson et al., 1992). Nelson contends, "if hospitals are to survive, they must learn how to generate high levels of patient satisfaction" (1992, p. 13).

Goldberg stresses the need to listen to the patient, "listen to the customer complaints and respond constructively" (1995, p. 53). By responding constructively, the hospital administration can contribute significantly to the healing process (Goldberg, 1995). Goldberg contends, "patients who participate in and feel a sense of control over their treatment are reported to have more positive outcomes than those who don't" (1995, p. 53). When patients are more satisfied, other factors improve, including enhancement of trust, greater compliance, increased tolerance of uncomfortable or frightening intervention and increased tolerance of delays. One regulatory agency, the Healthcare Financing Administration (HCFA), is taking an active role in increasing the availability of information to the healthcare consumers (Vladeck, 1994). In many cases, healthcare consumers tend to receive most of their healthcare information from family and friends (Christensen et al., 1989). However, most consumers traditionally looked to physicians for their healthcare information (Christensen et al., 1989). In this context, physicians must work harder to satisfy patients, since most dissatisfied patients will tell three to four times more people than the patients who were satisfied (Christensen et al., 1989).

The traditional view of the doctor-patient relationship looks at the patient as dependent on the doctor for healthcare and healthcare decisions (MacStravic, 1988). However, recently, healthcare hospital administrators and providers are attempting to involve patients in their own care (MacStravic, 1988). To satisfy the patient, the physician should involve the patient in the decision-making process (Brock et al., 1990). With guidance from the physician, patients can take an active role in the decision making process related to their health (Brock et al., 1990). One aspect of the new healthcare marketplace is clear, quality of care will no longer be taken for granted by the patient. There is more and more pressure on physicians and hospital administrators to ensure an optimal patient experience (Appleby, 1995).

Physician peer reviews and peer pressure have stimulated success in effecting physician performance in the context of TQM (Appleby, 1995). The Peer Review Organization (PRO) began gathering data for epidemiological reviews of outcomes and practice patterns (Hudson, 1991). In this context, the use of computers can support more sophisticated and insightful analyses of data (Birnbau, 1994). Birnbau states, "the goal of TQM is empowering professionals to achieve quality in their combined practices, not simply managing a system in statistical control" (1994, p. 111). Kaluzny and McLaughlin assert, "setting up long-run strategic objectives is important, but also important is setting short-run measurable objectives" (1995, p. 182). In this context, the PROs place increasing emphasis on outcomes (Hudson, 1991). The PRO core functional challenge is to analyze and aggregate data to show hospitals and physicians how they compare to others within the healthcare industry (Hudson, 1991). The promotion of sharing experiences and learning, designing projects, and reporting results related to applying continuous improvement principles within the healthcare environment is a worthwhile effort (Kaluzny et al., 1995). HMOs are also providing incentives and rewards to physicians for identifying best outcomes, reducing practice pattern variability and improving chronic disease care (Appleby, 1995). Finally, in addition to measuring procedures and physician care, looking outside of the organization for "best practices" is a must to the success of the TQM effort (Anderson-Miles, 1994).

The Role of Benchmarking

Benchmarking is a performance improvement method that has recently surfaced in the healthcare industry (Anderson-Miles, 1994). Benchmarking began in many business organizations as early as 1980, and is now a part of the Malcolm Baldrige National Quality Award process (Cappozzalo et al., 1994). Xerox was one of the pioneers of benchmarking, its 10-step model can be applied to healthcare benchmarking efforts (Nelson, 1994).

7

The goal of benchmarking is to improve performance so the organization survives and flourishes in a competitive marketplace (Czarniecki, 1994). In this context, "Benchmarking is about comparing, learning from the outcomes of such comparison, and consequently learning how to do the job better" (Anderson-Miles, 1994, p. 58). Benchmarking provides the internal focus of TQM with an external perspective by searching outside of the organization for "best practices" and optimal operating performance (Czarniecki, 1994). Anderson-Miles asserts, "the phases of benchmarking include, developing an understanding of one's own performance, carefully studying the practices of superior performers, and then adopting methods that will improve performance" (1994, p. 58). The basic steps of benchmarking include planning, analysis, integration, and action (Gift et al., 1994). Obtaining insightful information such as reporting formats, service improvements, admissions processes and clinical procedures can assist healthcare establishments in streamlining processes (Kaluzny et al., 1995). "Improving processes and factors that influence quality, cost, and excellence" are the applications of benchmarking (Manus, 1994, p. 57). Capozzallo states, "when the appropriate people are involved, senior management supports it, and when implemented correctly, benchmarking is one of the best available tools to help healthcare organizations improve their internal processes" (Capozzallo et al., 1994, p. 90). et al., 1994, p. 90).

Benchmarking, with its internal and external facets works very well within the context of TQM and Continuous Quality Improvement (CQI). Benchmarking starts with the assumption that healthcare quality is multifaceted. In this context, healthcare quality has an operational facet, outcome facet, and a strategic facet. The utilization of benchmarking with its different facets helps healthcare organizations in a number of ways. First, healthcare institutions that deploy benchmarking are forced to assess and evaluate customer requirements objectively based on the realities of the marketplace, instead of relying on past history or intuition. Second, benchmarking also provides a fact-based method for establishing goals and targets, since both the metrics and the practices of internal and external processes are investigated and documented. Third, a better understanding of the real measures of productivity, efficiency, quality, and effectiveness may also be attained through the process of benchmarking. Finally, an added benefit of benchmarking is its potential for uncovering some revolutionary practices or technologies that may positively impact the healthcare organization customer orientation and, therefore, its competitive advantage.

Once benchmarking and TQM efforts are in place, healthcare organizations can begin to invest in communicating these efforts to the public through their marketing efforts (Sunday et al., 1992). The achievement of the Malcolm Baldrige National Quality Award Program administered by the National Institute of Standards and Technology may be used as an instrument toward that end. Some healthcare institutions are targeting this award, as they attempt to differentiate their organizations in an ever increasingly competitive healthcare marketplace. In this context, "the organization will get the best results by examining the values and beliefs managers have about themselves, customers, and other people in the business" (Sunday et al., 1992, p. 77). Top management commitment to TQM, consensus of management on TQM, and TQM alignment with the values of the organization are all required for a high Baldrige score to occur (Sunday et al., 1992).

The Malcolm Baldrige National Quality Award Program implemented the Healthcare Pilot in 1995 in order to promote awareness of the importance of quality improvements in the healthcare setting, recognize organizations that have made substantial improvements, and to foster sharing of best practices among institutions in the healthcare industry (NIST, 1995). The Healthcare Pilot Criteria represents a first stage toward development of criteria intended to focus on healthcare excellence. The criteria incorporate the core values and concepts and are built upon the seven-part framework used in the 1995 Baldrige Award Criteria (NIST, 1995). The Baldrige Committee claims that the practical benefit from using a common framework for all sectors of the economy is that it fosters cross-sector cooperation and sharing of best practices information (NIST, 1995). In 1995 the Baldrige healthcare pilot program has drawn over 20,000 requests and 46 applicants (Columbia/HCA, 1995). The number of requests received clearly demonstrates that healthcare organizations are becoming more concerned with quality issues.

Examples of Successful Implementation

There are many examples of healthcare organizations which successfully integrated TQM into their operating philosophies (Bergman, 1994). Holston Valley Hospital in Kingsport, Tennessee has been a strong advocate of the team approach to solving problems in the context of TQM (Burke, 1990). The Holston Valley approach is to involve all employees into the process of improving the system on a continuous basis.

A team at George Washington University Medical Center focusing on patient rooms was able to save \$75,000 annually in linen expenses (Chaufournier et al., 1993). At the same hospital, waiting time in the pre-admission surgical-screening service has been decreased from several hours to an average processing time of 50 minutes

(Chaufournier et al., 1993). Through various TQM measures, Orlando's Florida Hospital which performed more than 2000 open-heart surgeries in 1992, expects to save nearly \$4 million annually by reducing the lengths of stay in five cardiac DRGs and implementing other cost-cutting measures (Lumsdon, 1993).

1 The Columbia/HCA Healthcare Corporation in Nashville, Tennessee has been a leader in full TQM system integration with a dynamic shift in their business culture (Koska, 1990). Columbia/HCA Healthcare Corporation owns and operates over 320 hospitals and healthcare facilities with over 60,000 licensed beds in 36 states, England and Switzerland (Columbia/HCA, 1995). This corporation is one example where the TQM changes have started with the fundamental organizational change in culture (Koska, 1990). When looking at hospital management, the Columbia/HCA Healthcare Corporation is one example of a quality-driven organization, eager to meet the needs of the customer population. Koska states, "individuals in the hospital use flow charts to demonstrate points instead of relying on the latest incident or their gut feelings" (1990, p. 59). The Malcolm Baldrige National Quality Award recognized the corporation's ambulatory surgery division and 125 centers for their continuous efforts to improve quality through process improvement and performance measurement (Columbia/HCA, 1995).

2 Anderson states, "the movement toward integrated delivery is being fueled in part by the growth in managed care providers' new role for innovative health delivery" (1992, p. 30). HMOs have gotten on board with regard to establishing quality standards, implementing measurements and integrating reward systems (Appleby, 1995). U.S. Healthcare, a 2-million member HMO is encouraging its contracting doctors to practice better and use less invasive, less expensive medical procedures by rewarding those who do with cash bonuses at the end of the year (Appleby, 1995). U.S. Healthcare is working with the Health Plan Employer Data and Information Set (HEDIS), toward measuring HMOs' quality (Appleby, 1995). HMOs are motivated to improve quality in order to retain current and attract new members (Appleby, 1995).

3 U.S. Healthcare is an example of HMOs' initiatives. However, it is to be noted that TQM and benchmarking practices in healthcare organizations are still the exception rather than the rule. Managed care consultants feel that the healthcare industry still lacks concrete methods to verify quality of care which is an essential part of any TQM and benchmarking effort (Appleby, 1995). Some of the exceptions are noted. PacifiCare, a million member managed care firm, tracks claims data and looks at how individual providers compare with their peers. PacifiCare has also provided physicians with the technology for processing transactions automatically rather than manually (Appleby, 1995). Kaiser medical group, a 6.6 million member HMO, conducts annual physician performance appraisals of technical quality of care, member satisfaction, utilization and interaction with the medical group (Appleby, 1995). Member satisfaction has become a driving issue, as the physician is not only concerned with the technical aspects of the quality of care but also concerned with the perception of quality on the part of the customer (Appleby, 1995).

4 The Mayo Clinic is focusing on reducing healthcare costs in a number of ways (Mayo Clinic, 1995). Its efforts include: treating more patients on an outpatient basis, reducing hospital visits; consolidating services and jobs to serve more patients and merging with other providers to form networks to serve people in geographic regions (Mayo Clinic, 1995). The Mayo Clinic has merged with 195 HMOs and other managed care plans in 35 states (Mayo Clinic, 1995). It also continues to develop guidelines to help its physicians deliver high quality efficient care (Mayo Clinic, 1995). The Mayo Clinic has also begun to send specialists into the community to reach individuals in hard-to-reach areas of the country (Mayo Clinic, 1995). Dr. Robert Waller, CEO of the Mayo Foundations writes,

5 As the world of healthcare continues to change, Mayo cannot stand still. We will not wait for healthcare reform from Congress or state legislators to dictate change. The nation is seeking high quality, cost-effective care, and Mayo is responding. We will meet the challenges next week, next month, next year and beyond. (Mayo Clinic, 1995)

6 The bottom line is that the healthcare industry is in trouble (Bergman, 1994). Bergman asserts, "TQM efforts will assist and could be a very effective strategy to turn the healthcare organizations around" (Bergman, 1994, p. 82). Healthcare organizations must take note of the "best practices" and encourage collaborations to deal with the healthcare crisis (Feigenbaum, 1992). "Understanding diverse patient roles can help healthcare professionals adapt quality tools and techniques developed for other settings so they are more effective in the human service area" (Legnick-Hall, 1995, p. 37). TQM efforts must focus on performance measurements. Healthcare managers must learn how to read the road ahead and use performance measures to promote a proactive philosophy in managing the customers, operations and strategies of their organizations. "Even if you are on the right track with TQM, if you sit still, you will get run over" (Lynch, 1991, p. 139).

7 DISCUSSION AND CONCLUSIONS

8 The operating environment of the healthcare industry is changing almost daily. To remain competitive in today's healthcare business environment, hospitals, health management organizations and physician private practices must

all keep pace with the daily changes in the marketplace and stay attuned to new legislation. The healthcare industry must improve its basic business skills in order to manage the business of healthcare more efficiently and effectively. Based on this literature review, it appears that some healthcare organizations have begun the process of implementing a quality management approach, however, many have not.

The healthcare industry is a service oriented industry and, therefore, it must begin to operate as any other service industry. According to Lovelock, "quality is essential when service is what is being sold" (Lovelock, 1988, p. 216). Traditionally, the healthcare industry tended to wait until someone complained before it took actions. Instead of waiting for the customer to complain, a proactive approach is needed to eliminate the need for most complaints. "Hospitals have two components: hotel-like service and healthcare" (Birnbbaum, 1994, p. 108). Healthcare managers and providers have dealt with the healthcare component to some extent, however, they have, to a large extent, ignored the service side of the healthcare experience. Quality service initiatives are more than a customer "suggestion box." In a service industry, key indicators of customer satisfaction include: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, and understanding of the customer needs and wants. These different facets of service quality are all required for successful service to occur (Lovelock, 1988).

By declaring customer service as a goal and encouraging employees to integrate customer service into the work environment, a quality service based on customer expectations may or may not occur. In this context, the weak links in a service organization are at the points where departments are supposed to meet (Lovelock, 1988). Management must train and motivate employees to work for the organization as a whole, rather than merely work for a given department. Encouragement and rewards from all management levels, including executives, are keys to TQM success. TQM cannot be achieved with pieces of quality initiatives, or ill-defined leadership.

In a healthcare operational service setting, there are many service processes that can be and should be measured in order to facilitate process improvements. Looking outside of the healthcare arena could serve healthcare organizations very well, when it comes to the process of searching for benchmarking partners (Gift, 1994). As an example, a local hospital could benchmark their hospital ward cleanliness and cleaning processes against that of the Marriott Corporation, a reputable and quality-driven corporation.

Everyone wins with a consistent, well-focused measurement system. Customers are more consistently satisfied, senior executives are more secure about the strategy of the organization, and operating managers are more focused on key result areas. This makes for a more satisfying work environment for all employees. Koska states, "though hospitals must necessarily begin by focusing their TQM efforts inward, that effort alone is not sufficient. For full transformation, the hospital must integrate into the community to improve health status" (1992, p. 50).

Healthcare organizations must educate the public. More than half of U.S. mortality is due to unhealthy lifestyles of Americans (Eskildson et al., 1992). To improve the health and well being of the public and reduce cost of healthcare, the healthcare community must invest in changing patients' lifestyles. In this context, the government can also encourage healthier lifestyles by appropriate legislative measures, increased research and education, and providing incentives for good health practices.

The government must become involved in promoting wellness in the United States. Some examples of legislative measures toward that end include improving and requiring seat belt restraint, enforcing drunk driving laws and promoting a smoke-free environment. Incentives for good health practices might include bonus rewards to offset the cost of health insurance to individuals. Incentives could be provided to corporations that offer health and wellness opportunities for their employees. The government should become involved whenever the promotion of wellness and prevention can make a difference. The government should let the hospital environment and insurers remain privately managed. Government should encourage quality regulators to measure and document healthcare "best practices." The Malcolm Baldrige National Quality Award Program measures many areas including internal and external customer satisfaction measures, quality initiatives including process analysis technique, overall strategic effectiveness and evaluation measures (NIST, 1995).

TQM may not alone cure all of the healthcare system, yet it has the potential to significantly improve the performance of the healthcare system. When a hospital is able to attain both lower cost and better quality through its TQM efforts, it will be in a better competitive position (Geber, 1992). Lawrence and Early contend that "there is always room for improvement-an organization does not need to be bad, in order to get better" (1992, p. 46).

Based on the literature review proposed and the authors' experience, the conceptual framework presented in Figure 1 is proposed. The framework is intended to give healthcare administrators and managers a context in which they can examine and understand the relationships between their organizations' operations, strategy, benchmarking efforts, and TQM efforts to promote a customer orientation. Such an understanding is critical, especially in light of

the increased competitive pressure in the healthcare marketplace. This framework is based on an open system approach to the management of the modern healthcare organization.



Enlarge 200%

Enlarge 400%

FIGURE 1.

[Reference]

REFERENCES

[Reference]

Anderson, Craig A, "Curing What Ails U.S. Healthcare," *Quality Progress*, Vol. 25, No. 4, April 1992, pp. 35-38.

Anderson, Howard, "Hospitals Seek New Ways To Integrate Healthcare," *Hospitals*, Vol. 66, No. 7, April 5, 1992, pp. 26-34.

Anderson-Miles, Eleanor, "Benchmarking in Healthcare Organizations: An Introduction," *Healthcare Financial Management*, Vol. 48, No. 9, September 1994-m-5-8-6-1

[Reference]

Appleby, Chuck, "HMOs on the Move," *Hospitals and Health Network*, Vol. 69, No. 22, Nov. 20, 1995, pp. 28-33.

Bergman, Rhonda, "Not-For-Profits May Get a Shot at Prestigious Quality Award," *Hospitals & Health Networks*, Vol. 68, No. 7, May 20, 1994, p. 82.

[Reference]

Birnbaum, David, "Measuring Healthcare Quality," *Quality Progress*, Vol. 27, No. 4, April 1994, pp. 108-112.

Brock, Dan W; Wartman, Steven A, "When Competent Patients Make Irrational Choices," *The New England Journal of Medicine*, Vol. 322, No. 22, May 31, 1990, pp. 1595-1599.

[Reference]

Burke, Marybeth, "TN Hospital Borrows Business Techniques to Improve Quality," *Hospitals*, Vol. 64, No. 10, May 20, 1990, pp. 68-70.

Capozzalo, Gayle L; Hlywak, John W; Kenny, Barbara; Krivenko, Charles, "Experts Discuss How Benchmarking Improves Healthcare," *Healthcare Financial Management*, Vol. 48, No. 9, September 1994, pp. 90-96.

Chaufournier, Roger L; St. Andre, Christine, "Total Quality Management in an Academic Health Center," *Quality Progress*, Vol. 26, No. 4, April 1993, -on. 63-66.

[Reference]

Ch@ney, Ellen; Dickenson, Joan; Lawrence, Anita; Talmanis, Cathy, "Improving Healthcare on a Tight Budget," *Quality Progress*, Vol. 26, No. 4, April 1993, __pp._25-29.

[Reference]

Christensen, Maggie; Inguanzo, Joe M, "Smart Consumers Present a Marketing Challenge," *Hospitals*, Vol. 63, No. 16, August 20, 1989, pp. 42-47.

Claybaker, Connie; Picken, John James, "Quality Enhancement Projects Improve Healthcare," *Quality Progress*, Vol. 25, No. 4, April 1992, pp. 103-106. Columbia/HCA, Searched on World Wide Web,

Internet System, "Columbia/

HCA Healthcare Corporation: A Vision for Healthcare That Became Reality," December 12, 1995.

[Reference]

Counte, Michael A; Glandon, Gerald L; Oleske, Denise M; Hill, James P, "Improving Hospital Performance: Issues in Assessing the Impact of TQM Activities," *Hospital & Health Services Administration*, Vol. 40, No. 1, Spring 1995, pp. 80-94.

[Reference]

Czarnecki, Mark T, "Benchmarking Can Add Up For Healthcare Accounting," *Healthcare Financial Management*, Vol. 48, No. 9, 1994, pp. 62-67.
 Eskildson, Loyd; Yates, Gary R, "Improving Healthcare's Suppliers," *Quality Progress*, Vol. 25, No. 4, April 1992, pp. 107-108.
 Eubanks, Paula, "TQM/CQI," *Hospitals*, Vol. 66, No. 11, June 5, 1992, pp. 2436.

[Reference]

Fiengenbaum, Armand V, "TQM: Healthcare Can Learn From Other Fields," *Hospitals*, Vol. 66, No. 22, November 20, 1992, p. 56.
 Fried, Robert A, "A Crisis In Healthcare," *Quality Progress*, Vol. 25, No. 4, April 1992, pp. 67-69.
 Geber, Beverly, "Can TQM Cure Healthcare?" *Training*, Vol. 29, No. 8, August 1992, pp. 25-34.

[Reference]

Gift, Robert G; Stoddart, Tom D; Wilson, Kirk B, "Collaborative Benchmarking in a Healthcare System," *Healthcare Financial Management*, September 1994, pp. 80-88.
 Godfrey, A. Blanton and Berwick, Donald M, "Can Quality Management Really Work in Health Care?" *Quality Progress*, Vol. 25, No. 4, April 1992, pp. 2327

[Reference]

Goldberg, M.C, "If We're Lucky, The Patient Will Complain," *American Journal of Nursing*, Vol. 95, No. 2, February 1995, pp. 52-53.
 Gopalakrishnan, K. N; McIntyre, Barry E, "Hurdles to Quality Healthcare," *Quality Progress*, Vol. 25, No. 4, April 1992, pp. 93-95.

[Reference]

Hudson, Terese, "PRO's New Quality Improvement Focus: Will It Work In Practice?" *Hospitals*, Vol. 65, No. 21, November 5, 1991, pp. 48-50.
 Inguanzo, Joe M, "Taking a Serious Look at Patient Expectations," *Hospitals*, Vol. 66, No. 17, September 5, 1992, p. 68.
 Jackson, Keith, "Hospital Processes Can't Be Improved Until They Are Understood," *Quality Progress*, Vol. 25, No. 4, April 1992, pp. 61-65.
 Kaluzny, Arnold D; McLaughlin, Curtis P, "Quality Improvement: Beyond the Institution," *Hospital & Health Services Administration*, Vol. 40, No. 1, Spring, 1995, pp. 172-188.

[Reference]

Koska, Mary T, "Adopting Deming's Quality Improvement Ideas: A Case Study," *Hospitals*, Vol. 64, No. 13, July 5, 1990, pp. 58-64.
 Koska, Mary T, "CEOs Say Hospitals Must Learn From Each Other For TQM Success," *Hospitals*, Vol. 66, No. 12, June 20, 1992, pp. 42-50.
 Koska, Mary T, "Patient-Centered Care: Can Your Hospital Afford Not To Have It?" *Hospitals*, Vol. 64, No. 21, November 5, 1990, pp. 48-54.
 Lawrence, David M; Early, John F, "Strategic Leadership for Quality in Healthcare," *Quality Progress* Vol. 25, No. 4, April 1992, pp. 45-48.

[Reference]

Legnick-Hall, Cynthia A, "The Patient as the Pivot Point for Quality in Healthcare Delivery," *Hospital & Health Services Administration*, Vol. 40, No. 1, Spring 1995, pp. 25-39.
 Lopresti, John; Whetstone, William R, "Total Quality Management: Doing Things Right," *Nursing Management*, Vol. 24, No. 1, January 1993, pp. 34-36.
 Lovelock, Christopher. (1988). *Managing Services: Marketing, Operations and Human Resources*. New Jersey: Prentice Hall.
 Lumsdon, Kevin, "Hospitals, Suppliers Put TQM to the Test," *Hospitals*, Vol. 67, No. 6, March 20, 1993, pp. 58-59.

[Reference]

Lynch, Richard L; Cross, Kelvin F. (1991). *Measure Up! Yardsticks For Continuous Improvement*. Massachusetts: Blackwell Business, Inc.

MacStravic, Scott, "The Patient as a Partner: A Competitive Strategy in Healthcare Marketing," Hospital & Health Services Administration, Vol. 33, No. 1, Spring 1988, pp. 15-24.
Manus, Paul, "Benchmarking Special Section," Healthcare Financial Management, Vol. 48, No. 9, September 1994, p. 57.

[Reference]

Matherly, Laura L; Lasater, Alan H, "Implementing TQM in a Hospital," Quality Progress, Vol. 25, No. 4, April, 1992, pp. 81-84.
Mayo Clinic, Searched on World Wide Web, Internet System, "Frequently Asked Questions About Mayo," December 12, 1995.
Morrison, Paul E; Heineke, Hanelle, "Why Do Healthcare Practitioners Resist Quality Management?" Quality Progress, Vol. 25, No. 4, April 1992, pp. 51-55.

[Reference]

Mueller, Richard A, "Implementing TQM in Healthcare Requires Adaptation and Innovation," Quality Progress, Vol. 25, No. 4, April 1992, pp. 57-59.
Murdick, Robert G; Render, Barry; Russell, Roberta S. (1990). Set-vice Operations Management. Boston: Allyn and Bacon Publishers.

[Reference]

Nance, James L, "Managed Care: The New Paradigm," America On-Lille, HMO, 1995.
National Institute of Standards and Technology (NIST), "1995 Healthcare Pilot Program," Malcolm Baldrige National Quality Award, 1995, pp. 1-46. Nelson, Bruce, "Improving Cash Flow Through Benchmarking," Healthcare Financial Management. Setember 1994. n1D. 74-79.

[Reference]

Nelson, Eugene C; Rust, Roland T; Zahorik, Anthony; Rose, Robin L; Batalden, Paul; Siemanski, Beth Ann, "Do Patient Perceptions of Quality Relate to Hospital Financial Performance?" Journal of Healthcare Marketing, Vol. 12, No. 4, December 1992, pp. 6-13.
Orme, Clifton N; Parsons, Robert J; McBride, Glen Z, "Customer Information and the Quality Improvement Process: Developing a Customer Information System," Hospital & Health Services Administration, Vol. 37, No. 2, Summer 1991- nn 1(7-912----

[Reference]

Pasternak, Derick P; Berry, Joseph A, "Healthcare's Multiple Dimensions of Quality," Quality Progress, Vol. 26, No. 12, December 1993, pp. 87-90. Reeves, Carol A; Bednar, David A, "What Prevents TQM Implementation in Healthcare Organizations?" Quality Progress, Vol. 26, No. 4, April 1993, pp. 41-44.

[Reference]

Slomski, Anita J, "How the Clinton Plan Would Judge Your Performance," Medical Economics, Vol. 71, No. 2, January 24, 1994, pp. 83-98.
Shapleigh, Christine, "Patient Data Critical to Hospital-Wide Quality," Healthcare Financial Management, Vol. 45, No. 6, June 1991, pp. 80-85.
Solovy, Alden T, "Champions of Change," Hospitals, Vol. 67, No. 5, March 5, -1993, pp. 15-23.

[Reference]

Somers, Mary, "Enhancing Customer Service in the Admitting Process," Healthcare Financial Management, Vol. 48, No. 9, September 1994, pp. 68-70.
Sunday, John L; Liberty, Larry, "Benchmarking the Baldrige Award," Quality Progress, Vol. 25, No. 9, September 1992, pp. 75-77.
Vladeck, Bruce C, "The Healthcare Quality Improvement Program: A Progress Report," The Journal of the American Medical Association, Vol. 271, No. 24, June 22, 1994, p. 1986.

[Author note]

Mahmoud M. Yasin is Associate Professor of Management, Department of Management and Marketing, Katherine A. Meacham is a graduate student, MBA Program, and Jafar Alavi is Associate Professor of Economics, Department of Economics and Finance, all at East Tennessee State

University.

Address correspondence to: Mahmoud M. Yasin, Associate Professor of Management, Department of Management and Marketing, P.O. Box 70625, East Tennessee State University, Johnson City, TN 37614-0625 (E-mail: IAXYASIN@ ETSU.ETSU-TN.edu).

Reproduced with permission of the copyright owner. Further reproduction or distribution is prohibited without permission.